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10/553,116	08/08/2006	Jens Husner	71932	1731
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EXAMINER				
SALONE, BAYAN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/553,116

**Applicant(s)**

HUSNER ET AL.

**Examiner**

BAYAN SALONE

**Art Unit**

3726

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-8,10-12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8,10-12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2005 and 07 June 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 09, 2010 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5, 6, 8, 10-12, 14 and 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmer (US Patent No. 6,109,682), in view of Heuel (US Patent No. 6,464,286).

4. Regarding Claim 1, Zimmer discloses a method for producing a door or hatch of a motor vehicle comprising: providing an internal sheet (3) and at least one external sheet (1) with said sheets being produced separately from each other; and bending the external sheet (1) inwardly by up to 90° (see Zimmer Figure 2) at sides visible from

outside in the edge area; pushing pertaining edge area (4) of the internal sheet (3) against the bend (2) of the external sheet (1) to minimize a gap (19) defined between edge areas of said internal sheet (3) and said bend of said external sheet (1); welding the internal sheet (3) and the external sheet (1) together by a laser beam (21) directed into the gap (19) between the edge areas (4) of the internal sheet (3) and the bend (2) of the external sheet (1); laying the edges of the external sheet (1) and internal sheet (3) on each other in parallel to the door plane at all invisible sides in the edge area of the attached part lying opposite to the visible area(s) (Note: the examiner construes all four sides of the sheets are identically formed (see Figure 2). The area where the inner sheet (3) and outer sheet (1) are abutted between supports (14, 15) shows wherein the sheets are placed parallel to one another before being welded together. As can also be noted from Figure 2, the sides of the inner sheet (3) are now hidden, once they are abutted against the interior of the outer sheet (1)); and laser welding in an overlap joint of the overlapping parallel edges of said external sheet and said internal sheet (Col. 1, Lines 10-16 and Col. 3, Lines 6-33, Fig. 2).

Zimmer does not disclose laying of an open end of the external sheet and an open end of the internal sheet on each other in parallel to a component plane at one side at least or at all invisible sides in the edge area of the attached part lying opposite to the visible area(s), wherein said open end of the external sheet and said open end of the internal sheet extend in a direction parallel to the component plane.

Heuel discloses a method for producing attached parts for a motor vehicle, including one or more of doors, dampers, mudguards, the method comprising: laying of

an open end (9) of an external sheet (2) and an open end (9) of an internal sheet (5) on each other in parallel to a component plane at one side at least or at all invisible sides in the edge area (9) of the attached part lying opposite to the visible area(s), wherein said open end (9) of the external sheet (2) and said open end (9) of the internal sheet (5) extend in a direction parallel to the component plane (Col. 2, Lines 48-63, Figs. 2 and 3). It would have been obvious to one of ordinary skill in the art at the time of invention to form the door of Zimmer having internal and external sheets with open ends; wherein laying of an open end of the external sheet and an open end of the internal sheet on each other in parallel to a component plane at one side at least or at all invisible sides in the edge area of the attached part lying opposite to the visible area(s), wherein said open end of the external sheet and said open end of the internal sheet extend in a direction parallel to the component plane as disclosed by Heuel for the benefit of properly aligning the internal and external sheets prior to securing the sheets together.

5. Regarding Claim 2, the aforementioned combination as applied to claim 1 remains as previously applied. Zimmer discloses wherein a visible edge area of said external sheet is inwardly bent around the inner sheet using a bordering tool so that the inner sheet is bordered by the outer sheet. (Col. 1, Lines 10-16).

6. Regarding Claim 3, the aforementioned combination as applied to claim 1 remains as previously applied. The aforementioned combination does not explicitly disclose wherein the invisible edge areas of a hinge side and/or of a window side of the door external sheet are connected with the edge areas of the door internal sheet. Zimmer does however disclose the inner and outer sheets are joined in an overlap joint

by laser welding or in the fillet of the overlapping edge areas by laser welding or laser soldering (Col. 1 Lines 10-16 and Lines 23-24).

7. Heuel discloses wherein a not visible edge area is at a hinge side and/or a window side of the door external sheet (Col. 2, Lines 29-30 and Col. 3, Lines 8-10, Figs. 1-3). It would have been obvious to one of ordinary skill in the art at the time of invention that a not visible edge area of the external sheet of Zimmer is connected with the edge areas of the door internal sheet as disclosed by Heuel for the benefit of securely fastening the internal and external sheets together.

8. Regarding Claim 5, the aforementioned combination as applied to claim 1 remains as previously applied. Zimmer discloses wherein in the visible area where the external sheet (1) is inwardly bent, the internal sheet (3), too, is wholly or partly bent inwardly or outwardly in an edge area (Col. 3, Lines 6-13, Figs. 2-4).

9. Regarding Claim 6, the aforementioned combination as applied to claim 5 remains as previously applied. Zimmer discloses wherein the bend of the external sheet (1) forms an acute angle to the bend of the internal sheet (3) to substantially enhance the moment of resistance to better seal the internal and external sheets together (Col. 1, Lines 49-53 and Col. 3, Lines 11-13, Fig. 4).

10. Regarding Claim 8, the aforementioned combination as applied to claim 1 remains as previously applied. Zimmer discloses wherein the edge area of the internal sheet (3) is arranged in parallel to the external sheet (2) and that a side of the edge of the internal sheet (3) is so beveled that said side of said edge of said internal sheet forms an acute angle to the bend of the external sheet (1). (Note, as can be seen in

Figure 2, the end regions (2, 4) of the external and internal sheets are mated together in a parallel configuration. The bend area below the weld area (5) shows wherein an acute angle is formed between the sheets and flows into the bend).

11. Regarding Claim 10, Zimmer discloses a method for producing a motor vehicle part to be attached to a motor vehicle body, with the attached part having a visible edge area visible by a user of the motor vehicle and a hidden or not visible edge area that cannot be viewed by a user of the motor vehicle, the method comprising the steps of: welding the internal sheet (3) and the external sheet (1) together by a laser beam (21) directed into the gap (19) between the edge area (4) of the internal sheet (3) and the bent portion adjacent to the bend of the external sheet (1); and forming the edge area by laying an edge portion (2) of the external sheet and an edge portion (4) of the internal sheet on each other in parallel to the door plane and laser-welding the portions together to form an overlap joint (Col. 1, Lines 10-16 and Col. 3, Lines 6-33, Fig. 2).

Zimmer does not disclose wherein said internal sheet and said external sheet define a component plane; forming a hidden or not visible edge area by laying a flange end portion of the external sheet and a flange end portion of the internal sheet on each other to a component plane to form overlapping flange end portions, wherein said overlapping flange end portions extend in a direction parallel to said component plane; and laser-welding the overlapping flange portions together after said internal sheet and said external sheet are welded between the edge area and the bent portion to form an overlap joint or laser-welding or laser-soldering in a fillet at overlapping flange portions to form an overlap joint, wherein at least a portion of said flange end portion of said

internal sheet moves along at least a portion of said flange end portion of said external sheet when said edge area of said internal sheet is pushed against said bent portion of said external sheet.

Heuel discloses a method for producing a motor vehicle part (1) to be attached to a motor vehicle body, with the attached part (1) having a visible edge area visible by a user of the motor vehicle and a hidden or not visible edge area that cannot be viewed by a user of the motor vehicle, the method comprising the steps of: forming an internal sheet (5); forming an external sheet (2) produced separately from the internal sheet (5); forming the visible edge area by bending the external sheet (2) inwardly at a side by up to ninety degrees to form a bend (12) and a bent portion (Col. 3, Lines 11-17, Figs. 4 and 5); moving said internal sheet (5) in a direction of said bent portion such that an edge area of the internal sheet (5) is pushed against the bent portion to minimize a gap between the bent portion and the edge area of the internal sheet (5); wherein said internal sheet and said external sheet define a component plane; forming a hidden or not visible edge area by laying a flange end portion (9) of the external sheet (2) and a flange end portion (9) of the internal sheet (5) on each other to a component plane to form overlapping flange end portions (9), wherein said overlapping flange end portions (9) extend in a direction parallel to said component plane; wherein at least a portion of said flange end portion (9) of said internal sheet (5) moves along at least a portion of said flange end portion (9) of said external sheet (2) when said edge area (9) of said internal sheet (5) is pushed against said bent portion (9) of said external sheet (2) (Col. 3, Lines 22-29, Figs. 4 and 5). ). It would have been obvious to one of ordinary skill in



the art at the time of invention to form the door of Zimmer with a hidden or not visible edge area as a flange end portion of the external sheet in contact with a flange end portion of the internal sheet, said flange end portion of said external sheet and said flange end portion of said internal sheet extending in a direction parallel to said component plane to form overlapping flange end portions as disclosed by Heuel for the benefit of properly aligning the internal and external sheets before fastening the internal and external sheets together.

12. Regarding Claim 11, the aforementioned combination as applied to claim 10 remains as previously applied. The aforementioned combination does not explicitly disclose wherein the visible edge area of said external sheet is inwardly bent at a sill side and/or lock side of the door. However, Zimmer discloses wherein a visible edge area of said external sheet is inwardly bent around the inner sheet using a bordering tool so that the inner sheet is bordered by the outer sheet. (Col. 1, Lines 10-16).

Heuel discloses wherein the visible edge area of said external sheet (2) is inwardly bent at a sill side and/or lock side of the door (Col. 2, Lines 3-8 and Col. 3, Lines 23-28, Figs. 1 and 5). It would have been obvious to one of ordinary skill in the art at the time of invention that a visible edge area of the external sheet of Zimmer is bent at a sill side and/or lock side of the door as disclosed by Heuel for the benefit of rounding off the end region of the external sheet.

13. Regarding Claim 12, the aforementioned combination as applied to claim 10 remains as previously applied. The aforementioned combination does not explicitly

disclose wherein the not visible edge area is at a hinge side and/or at a window side of the door external sheet.

Heuel discloses wherein a not visible edge area is at a hinge side and/or a window side of the door external sheet (Col. 2, Lines 29-30 and Col. 3, Lines 8-10, Figs. 1-3). It would have been obvious to one of ordinary skill in the art at the time of invention that a not visible edge area of the external sheet of Zimmer is at a hinge side and/or window side as disclosed by Heuel for the benefit of completely fastening the internal and external sheets together.

14. Regarding Claim 14, the aforementioned combination as applied to claim 10 remains as previously applied. Zimmer discloses wherein the bend of the external sheet (1) forms the bent portion at an acute angle to the bend of the internal sheet (3) to substantially enhance the moment of resistance to better seal the internal and external sheets together (Col. 1, Lines 49-53 and Col. 3, Lines 11-13, Fig. 4).

15. Regarding Claim 16, the aforementioned combination as applied to claim 10 remains as previously applied. Zimmer discloses wherein the edge area of the internal sheet (3) is provided by bending an end in a direction away from the external sheet (Col. 1, Lines 49-52, Fig. 3).

16. Regarding Claims 17 and 18, the aforementioned combination as applied to claim 10 remains as previously applied. Zimmer discloses wherein the edge area of the internal sheet (3) is provided by bending an end (4) in a direction toward the external sheet (1); wherein the edge area (4) of the internal sheet (3) is the end face of the

internal sheet (3) directed toward an inner surface of the bent portion of the external sheet (1) (Col. 3, Lines 43-47, Fig. 7).

17. Regarding Claim 19, Zimmer discloses a method that results in the production of a motor vehicle door or hatch. The motor vehicle door comprising: an external sheet (1) comprising an edge area wherein a side of said edge area of said external sheet (1) is bent by an angle up to  $90^\circ$  to form a bend and a bent portion (See Zimmer Figure 2); and an internal sheet (3) comprising an edge area (4); said internal sheet (3) and said external sheet (1) defining a component plane; said internal sheet (3) being produced separately from said external sheet (1) (the external sheet and the internal sheet are brought together and formed to produce the vehicle door or hatch), wherein said internal sheet (3) is movable along said external sheet (1) such that an edge area (4) of said internal sheet (1) is pushed against the bent portion of the external sheet (1) (the internal sheet (3) is "pushed" against the external sheet (1) when they are abutted against one another to be welded together) to minimize a gap (19) between the bent portion and the edge area (4) of the internal sheet (3), the internal sheet (3) and the external sheet (1) being welded together by a laser beam (21) directed into the gap (19) between the edge area (4) of the internal sheet (3) and the bent portion adjacent to the bend of the external sheet (1) with said edge area (4) of said internal sheet pushed against the bent portion, wherein the edge area (2) of the external sheet (1) is in contact with an edge (4) of the internal sheet (3), said edge portion (2) of said external sheet (1) and said edge portion (4) of said internal sheet (3) being on each other in parallel to the door plane to form overlapping portions, wherein the overlapping portions are laser-

welded together to form an overlap joint (Col. 1, Lines 10-16 and Col. 3, Lines 6-33, Fig. 2).

Zimmer does not disclose wherein the hidden or not visible edge area is an open flange end portion of the external sheet in contact with an open flange end portion of the internal sheet, said open flange end portion of said external sheet and said open flange end portion of said internal sheet extending in a direction parallel to said component plane to form overlapping flange end portions.

Heuel discloses motor vehicle part (1) to be attached to a motor vehicle body, comprising: an external sheet (2) comprising a visible edge area visible by a user of the motor vehicle (see figures 1-3), wherein a side of said visible edge area of said external sheet (2) is bent by an angle up to ninety degrees (see Figures 2 and 3) to form a bend and a bent portion; and an internal sheet (5) comprising a hidden or not visible edge area that cannot be viewed by a user of the motor vehicle, said internal sheet (5) and said external sheet (2) defining a component plane said internal sheet (5) being produced separately from said external sheet (2), wherein said internal sheet (5) is movable along said external sheet (2) such that an edge area (9) of said internal sheet (5) is pushed against the bent portion the external sheet (2) to minimize a gap between the bent portion and the edge area (9) of the internal sheet (5) (see Figures 2 and 3), wherein the hidden or not visible edge area is an open flange end portion (9) of the external sheet (2) in contact with an open flange end portion (9) of the internal sheet (5), said open flange end portion (9) of said external sheet (2) and said open flange end portion (9) of said internal sheet (5) extending in a direction parallel to said component

plane to form overlapping flange end portions (9) (Col. 2, Lines 47-63, Figs. 2 and 3). It would have been obvious to one of ordinary skill in the art at the time of invention to form the door of Zimmer with a hidden or not visible edge area as an open flange end portion of the external sheet in contact with an open flange end portion of the internal sheet, said open flange end portion of said external sheet and said open flange end portion of said internal sheet extending in a direction parallel to said component plane to form overlapping flange end portions as disclosed by Heuel for the benefit of properly aligning the internal and external sheets before fastening the internal and external sheets together.

18. Regarding Claim 20, the aforementioned combination as applied to claim 19 remains as previously applied. The aforementioned combination does not explicitly disclose the visible edge area of the external sheet is inwardly bent at a sill side and/or lock side and the not visible edge area is at a hinge side and/or a window side. Zimmer does however disclose the internal and external sheets are welded together (Col. 1 Lines 10-16 and Lines 23-24).

Heuel discloses wherein the part is a motor vehicle door (1) and the visible edge area of the external sheet (2) is inwardly bent at a sill side and/or lock side of the door (1) (Col. 3, Lines 23-28, Figs. 1 and 5) and the not visible edge area is at a hinge side and/or a window side of the door external sheet (2) (Col. 2, Lines 29-30 and Col. 3, Lines 8-10, Figs. 1-3). It would have been obvious to one of ordinary skill in the art at the time of invention that a not visible edge area of the external sheet of Zimmer is at a hinge side and/or window side and the not visible edge area is at a hinge side and/or a

window side of the door external sheet as disclosed by Heuel for the benefit of completely fastening the internal and external sheets together.

19. Regarding Claim 21, the aforementioned combination as applied to claim 19 remains as previously applied. Zimmer discloses wherein the edge area of the internal sheet (3) is provided by bending an end in a direction away from the external sheet (Col. 1, Lines 49-52, Fig. 3) and wherein the edge area of the internal sheet (3) is provided by bending an end (4) in a direction toward the external sheet (1) (Col. 3, Lines 43-47, Fig. 7).

20. Regarding Claim 22, the aforementioned combination as applied to claim 19 remains as previously applied. The aforementioned combination does not explicitly disclose wherein said internal sheet is slidable against said external sheet in said component plane. However, Zimmer discloses wherein said internal sheet (3) and said external sheet (1) are movable with respect to one another prior to said welding step (the internal sheet (3) is "movably" placed in parallel with the external sheet (1) when the two are abutted against one another to be welded together).

Heuel discloses both internal and external sheets (5, 2) have open ends (9) allowing one to move or "slide" the internal sheet against the external sheet before fastening the sheets together. It would have been obvious to one of ordinary skill in the art at the time of invention to "slide" the internal sheet against the external sheet of Zimmer as disclosed by Heuel to properly align the sheets before securing the sheets together.

21. Regarding Claim 22, the aforementioned combination as applied to claim 19 remains as previously applied. Zimmer discloses wherein said flange end portion (4) of said internal sheet (3) and said flange end portion of said external sheet (1) are movable with respect to one another with said gap in an unwelded state (the internal sheet (3) is "movably" placed in parallel with the external sheet (1) with respect to a formed gap (19) when the two are abutted against one another prior to being welded together).

Zimmer further discloses wherein the edge of the outer sheet (1) is bent around the inner sheet (3) so the inner sheet (3) is bordered by the outer sheet (Col. 1, Lines 10-16). As seen in Figure 2, the area where the inner sheet (3) and outer sheet (1) are abutted between supports (14, 15) shows wherein the sheets are placed parallel to one another where overlapping "*flanged*" portions are formed before being welded together.

22. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmer (US Patent No. 6,109,682), in view of Heuel (US Patent No. 6,464,286) as applied to Claims 1 and 10 above, in further view of Klaus et al. (EP Patent Document 0200997).

23. Regarding Claims 7 and 15, The aforementioned combination as applied to claims 1 and 10 remain as previously applied. The aforementioned combination does not explicitly disclose wherein the edge areas of the internal sheet are inwardly or outwardly bent by up to 180°. However Heuel discloses the inner sheet may be bent to an angle of  $\leq 90^\circ$  or  $\geq 90^\circ$  (Col. 1, Lines 57-60).

Klaus et al. discloses a method of laser beam welding two thin metal sheets (1, 2) together. The two metal sheets being an internal sheet (1) and an external sheet (2) are formed by bending each of the edges (3, 4) of the metal sheets to an angle of 180°, to form flanged areas (3, 4) (Abstract of the disclosure). It would have been obvious to one of ordinary skill in the art at the time of invention to form the edge areas of the aforementioned combination at a bent angle of up to 180° as disclosed by Klaus et al., for the benefit of substantially enhancing the moment of resistance.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BAYAN SALONE whose telephone number is (571)270-7739. The examiner can normally be reached on M-Th, 7:30 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571)-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.



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/BAYAN SALONE/  
Examiner, Art Unit 3726

/DAVID P. BRYANT/  
Supervisory Patent Examiner, Art Unit 3726